

Tempe Fire Department Policies and Procedures
Fire Engineer
410.02E
Rev 3-17-97

DEFINITION

Operate and maintain a variety of fire apparatus and firefighting equipment; provide highly skilled emergency medical care to sick and injured persons; participate in firefighting activities, occupancy inspections, public education, and training; and perform mechanical maintenance on vehicles, equipment, and apparatus.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from a Fire Captain or higher level supervisory and management staff.

Exercises technical supervision over lower level fire staff.

EXAMPLES OF DUTIES - Duties may include, but are not limited to, the following:

- Drive fire-pumping and aerial ladder apparatus to alarms and operate pump and ladders at the fire; regulate water pressure through hose lines.
- Operate and oversee the use of numerous types of vehicles, equipment, tools, and apparatus.
- Inspect vehicles, equipment, and apparatus including aerial ladder and pumping equipment; perform maintenance and minor repair work; identify the need for major repairs; maintain records of maintenance and overhauls..
- Perform the duties of a Firefighter when operating an apparatus.
- Maintain an awareness of City layout and the water system.
- Perform first aid at the Emergency Medical Technician level.
- Participate in inspections, drills, and other training activities.
- Participate in station maintenance work.
- Operate radio equipment.
- Act as a Captain as assigned.
- Perform related duties as assigned.

When assigned as scene support:

- Provide air/light and rescue support at emergency incidents.
- Manage driver training program for assigned shift.
- Participate in the development and direction of training commonly associated with the engineer's position; provide assistance and support for additional training functions.

When assigned to Paramedic position:

- Administer emergency medical care utilizing accepted guidelines of basic and advanced life support.
- Use appropriate techniques, equipment and training to provide intubation, defibrillation, drug therapy, intravenous access and other invasive procedures in the management of patient care.

When assigned to SCBA maintenance and repair:

- Inspect, repair, operate, and maintain self-contained breathing apparatus (SCBA).

QUALIFICATIONS

Knowledge of:

- Principles, practices, and procedures of modern firefighting and firefighting vehicles, equipment, and apparatus.
- Purposes and uses of a variety of vehicles, equipment, tools, and apparatus used in firefighting, rescue, and medical assistance operations.
- Principles of mechanics, hydraulics, and mathematics as related to Fire Engineer duties.
- City geography, street names, and locations.
- City Uniform Fire Code and Uniform Building Code.
- Principles and practices of emergency medical procedures such as First aid, CPR, and other medical assistance techniques.

When assigned to Paramedic position:

- Drugs carried and administered.
- Principles of pharmacology and toxicology.

Ability to:

- Effectively and safely drive and operate the full range of fire apparatus and equipment used by the Department.
- Perform field calculations of hydraulics for the proper and effective operations of equipment at emergency scenes.
- Demonstrate physical endurance, agility, strength, and stamina in the performance of hazardous tasks under emergency conditions; think and act quickly in emergencies.
- Perform triage effectively and independently.
- Select and apply appropriate emergency treatment and use specialized equipment and apparatus required.
- Understand and follow oral and written directions promptly and accurately.

- Establish and maintain cooperative relationships with those contacted in the course of work.

When assigned to Paramedic position:

- Properly administer drugs as directed by base station physician.
- Identify and communicate physical and other findings clearly to base station physician.

Experience and Training

Experience:

Three years experience providing emergency fire and medical service for the City of Tempe.

Training:

Equivalent to completion of the twelfth grade and successful completion of Fire Hydraulics (FSC107) and Fire Apparatus (FSC201) courses at an accredited college or university. An AAS in Fire Science Technology satisfies these course requirements.

Licenses and Certificates

- Possession of, or ability to obtain, an appropriate, valid Arizona driver's license.
- Possession of, or ability to obtain, an Emergency Medical Technician certificate.
- Possession of, or ability to obtain, a Hazardous Materials First Responder or Hazardous Materials Technician certificate.
- Possession of, or ability to obtain, a Radiological Monitoring certificate.
- Possession of, or ability to obtain, a certified Emergency Paramedic certificate is required for some positions.